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<p>(21) International Application Number: PCT/US98/19316</p> <p>(22) International Filing Date: 16 September 1998 (16.09.98)</p> <p>(30) Priority Data:</p> <table border="0"> <tr><td>60/059,082</td><td>16 September 1997 (16.09.97)</td><td>US</td></tr> <tr><td>60/059,839</td><td>16 September 1997 (16.09.97)</td><td>US</td></tr> <tr><td>60/059,840</td><td>16 September 1997 (16.09.97)</td><td>US</td></tr> <tr><td>60/059,841</td><td>16 September 1997 (16.09.97)</td><td>US</td></tr> <tr><td>60/059,842</td><td>16 September 1997 (16.09.97)</td><td>US</td></tr> <tr><td>60/059,843</td><td>16 September 1997 (16.09.97)</td><td>US</td></tr> <tr><td>60/059,844</td><td>16 September 1997 (16.09.97)</td><td>US</td></tr> <tr><td>60/059,845</td><td>16 September 1997 (16.09.97)</td><td>US</td></tr> <tr><td>60/059,846</td><td>16 September 1997 (16.09.97)</td><td>US</td></tr> <tr><td>60/059,847</td><td>16 September 1997 (16.09.97)</td><td>US</td></tr> </table> <p>(71) Applicant (for all designated States except US): INFORMATION RESOURCE ENGINEERING, INC. [US/US]; 8029 Corporate Drive, Baltimore, MD 21236 (US).</p>		60/059,082	16 September 1997 (16.09.97)	US	60/059,839	16 September 1997 (16.09.97)	US	60/059,840	16 September 1997 (16.09.97)	US	60/059,841	16 September 1997 (16.09.97)	US	60/059,842	16 September 1997 (16.09.97)	US	60/059,843	16 September 1997 (16.09.97)	US	60/059,844	16 September 1997 (16.09.97)	US	60/059,845	16 September 1997 (16.09.97)	US	60/059,846	16 September 1997 (16.09.97)	US	60/059,847	16 September 1997 (16.09.97)	US	<p>Timothy [US/US]; 9 Birch Lane, Atkinson, NH 03811 (US). REED, Peter [US/US]; 1 Bancroft Avenue, Beverly, MA 01915 (US).</p> <p>(74) Agent: BODNER, Gerald, T.; Hoffmann & Baron, LLP, 350 Jericho Turnpike, Jericho, NY 11753 (US).</p> <p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p>
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<p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): KAPLAN, Michael, M. [US/US]; 4 Ocean Drive, Rockport, MA 01966 (US). DOUD, Robert, Walker [US/US]; 4 Redcoat Road, Bedford, MA 01730 (US). KAVSAN, Bronislav [US/US]; 150 Rosemont Drive, North Andover, MA 01845 (US). OBER,</p>		<p>Published</p> <p><i>With international search report.</i></p> <p><i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p>(88) Date of publication of the international search report: 22 July 1999 (22.07.99)</p>																														

A secure communication platform on an integrated circuit is a highly integrated security processor which incorporates a general purpose digital signal processor (DSP) (62), along with a number of high performance cryptographic function elements, as well as a PCI and PCMCIA (14) interface. The secure communications platform is integrated with an off-the-shelf DSP so that a vendor who is interested in digital signal processing could also receive built-in security functions which cooperate with the DSP. The integrated circuit includes a callable library of cryptographic commands and encryption algorithms. An encryption processor is included to perform key and data encryption, as well as a high performance hash processor and a public key accelerator (28).

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US98/19316

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :H04L 9/06
US CL :380/25,49,2

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 380/25,49,2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Extra Sheet.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4,987,595 A (MARINO, JR. et al.) 22 January 1991, abstract, col.3, lines 15-20, col.4, lines 20-49, fig.1	1-15
Y	US 5,631,960 A (LIKENS et al.) 20 May 1997, col.5, lines 39-48, col.6, lines 16-45, col.,7 lines 11-23.	1-15
A	US 5,557,346 A (LIPNER et al) 17 September 1996, fig.1, col.9, lines 11-20, col.13, lines 46-58, col.15, lines 51-59	23-27
A	US 5,623,545 A (CHILDS et al) 22 April 1997, col.4, lines 5-23, col.5, lines 56-67, col.6, lines 1-10	1-20,28-30

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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"O"	document referring to an oral disclosure, use, exhibition or other means	
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Date of the actual completion of the international search
12 APRIL 1999

Date of mailing of the international search report
03 JUN 1999

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International application No.
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	US 5,721,777 A (BLAZE) 24 February 1998, col.2, lines 52-67, col.3, lines 1-18, 31-43, col.4, lines 41-63, col.6, lines 9-43	1-17,23-30

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US98/19316

B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

APS,DIALOG

search terms: key recovery, key escrow, hash, smart card, token card, secure kernel, diffie hellman, public key, plural algorithm, encryption algorithm, multiple algorithm, random key, random number generator